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NEW SPECIES OF FUNGI FROM VARIOUS LOCALITIES.

BY J. B. ELLIS AND BENJA. M. EVERHART.

(Continued from page 81.)

PARODIELLA FRUTICOLA, E. & E.—On dead stems of *Clematis ligusticifolia*. Sand Coulee, Montana, Feb. 1888. F. W. Anderson No. 134. Perithecia obovate, astomous (at first), about 1 mm. diam., black, flattened above and finally umbilicate-collapsed and irregularly or sublaciniately ruptured above, seriatly erumpent through cracks in the bark, often densely crowded but not confluent. Asci subcylindrical, 100—150 x 15—20, paraphyses cylindrical, often branching below, faintly septate, evanescent. Sporidia 1-seriate or occasionally more or less perfectly biseriate, broad-fusoid-oblong, subinequilateral, 1-septate, straw-yellow, 30—35 x 8—15. The perithecia are often subangular from mutual pressure and are at first filled with a whitish grumous mass but finally become empty. The less crowded forms resemble outwardly *Lophiostoma Montaniense*, E. & E., from which it is easily distinguished by its astomous perithecia and different sporidia. *Dothidea insculpta*, Wallr. according to specimens and description is different.

SPHÆRELLA OPUNTIÆ, E. & E.—On dead leaves of *Opuntia*. Louisiana, Langlois, 1261. Perithecia gregarious 100—112 micr. diam. in patches 2—10 mm. across. Ostiola erumpent, globose, imperfectly quadrisulcate-cleft. Asciblong-cylindrical 60 x 8—9 sessile, without paraphyses. Sporidia biseriate, clavate-fusoid, 1-septate slightly bent at the septum, nucleate, yellowish, 20—22 x 3½. Remarkable for its peculiar ostiola.

SPHÆRELLA SPARTINAE, E. & E.—On dead leaves and sheaths of *Spartina cynosuroides*, near Lincoln, Nebraska, Oct. 1888. H. J. Webber, No. 56. Perithecia of coarse cellular structure, subastomous, elliptical, 100—112 x 170—190, buried in the par-

enchyma of the leaf and plainly visible above or on the outside and faintly so inside, quite evenly and thickly scattered. Asci mostly immature in the specc. examined but evidently present. Free sporidia (which we believe to be ascospores) oblong-elliptical, yellowish, constricted and faintly 1-septate in the middle with about 4 small nuclei, $12-16 \times 4\frac{1}{2}-5\frac{1}{2}$. This can not be the *Ascochyta Spartineæ*, Trelease, J. M. I, p. 14, on account of the absence of any spots and the quite different spores. We are also confident that the Nebraska specc. are ascigerous.

SPHÆRELLA ASTERINOIDES, E. & E.—On dead stem of *Dipsacus*, Clyde, N. Y., April '88, O. F. Cook, Jr., No. 539. Perithecia scattered, lenticular, rather broadly pierced above, prominent, but covered with the cuticle, their bases sunk in the matrix, and more or less distinctly fringed with brown branching mycelium. Asci without paraphyses, clavate-cylindrical, with a short narrow base, $80-90 \times 18-20$. Sporidia crowded, acutely elliptical, 1-septate and constricted, upper cell mostly broader, smoky-hyaline $22-28 \times 8-12$.

SPHÆRELLA SESBANIAE, E. & E.—On dead stems of *Sesbania macrocarpa*, Louisiana, June '88, Langlois No. 1403. Densely gregarious, erumpent, perithecia $80-100$ micr. diam. pierced above. Asci $35-40 \times 7-8$, paraphyses none. Sporidia biseriata, oblong-cylindrical, 1-septate, but not constricted nor curved, $10-12 \times 3\frac{1}{2}-4$, ends obtuse. Preceded by a Macrosporium with short crooked septate hyphæ and oblong 2—3-septate, muriform conidia, which are soon opake. In general appearance resembles *S. granulata*, E. & E., but has much smaller sporidia.

SPHÆRELLA APPLANATA E. & E.—On dead stems of *Clematis ligusticifolia*, Sand Coulee, Montana. Feb. '88, Anderson 134 (in part). Scattered, punctiform, flattened, covered by the thin epidermis through which the perithecia are plainly visible. Asci oblong $40-50 \times 15$. Sporidia biseriata oblong-elliptical or pyriform, 1-septate, hyaline, $18-20 \times 6-8$. On the same stems was another Sphærella, with sporidia continuous (Læstadia) and perithecia not flattened but the material was insufficient for a satisfactory description.

PEZIZA (SARCOSCYPHA) RHIZOMORPHA, E. & E.—Growing from a Rhizomorpha (*R. subterranea* Pers.?) on the ground among moss in woods, St. Martins Co., La., Apr. '88, Langlois, No. 1193. Turbinate, with a thick stipelike base, carnose, deeply sulcate outside and covered with a thin coat of tomentum, slaty-black throughout, $4-6$ mm. diam., margin strongly incurved, substrigose-tomentose at base. Asci cylindrical, about 200×10 micr., with

filiform olivaceous somewhat branched paraphyses, which are scarcely thickened at the tips. Sporidia uniseriate, elliptical about 20×10 micr., granular. Allied to *P. melastoma* Sow. & *P. hirtipes* Cke.

PEZIZA (DASYSC.) FRONDICOLA, E. & E.—On the fallen pinnæ of *Osmunda*? Newfield, N. J., June '88. Scattered sessile, cup shaped, black and nearly closed when dry, $\frac{1}{4}$ — $\frac{3}{8}$ mm. across, disk pallid, clothed outside and margin fringed with short (35×3 micr.), brown obtuse septate, hairs which are slightly roughened above. Asci oblong-lanceolate, sessile, subacute at each end, 30 — 35×6 with filiform paraphyses. Sporidia biseriate, clavate-oblong or subfusoid, hyaline, nucleate, 8 — $12 \times 1\frac{1}{2}$.

PEZIZA (DASYSC.) VENTURIODES E. & E.—On fallen leaves of *Gaylussacia dumosa*, Newfield, N. J. Gregarious sessile $\frac{1}{4}$ mm. diam. disk whitish, clothed outside with straight rigid, acute, continuous black bristles 60 — 80×4 — 5 . Asci sessile obtusely pointed above about 30×6 micr., with filiform paraphyses. Sporidia biseriate, clavate-fusoid or clavate-oblong, hyaline, continuous, about 10 — $12 \times 1\frac{1}{2}$ — 2 .

PEZIZA (DASYSC.) HYSTRICULA, E. & E.—On the tomentum on the under side of leaves of *Magnolia grandiflora*, St. Martinsville, La., May, '88, Langlois 1317. Minute, white scattered, substipitate, closed when dry, clothed with straight, continuous or faintly septate rough hairs 50 — 75×4 — 5 . Asci oblong-clavate, sessile, 25×7 — 8 . Paraphyses not seen. Sporidia biseriate in the upper part of the asci and apparently subfusoid, 3-septate and about 12×2 micr. but the specimens examined were not well matured so that there remains some uncertainty as to the shape and size of the sporidia. It has the same habit as *P. tautilla*, *Phill. & Hark.*

PEZIZA (DASYSC.) CALLOCHAETES, E. & E.—On fallen leaves of *Myrica cerifera*, Newfield, N. J., June '88. Found also in '78. Stipitate, 1 mm. high, cup $\frac{1}{2}$ — $\frac{3}{4}$ mm. broad and sparingly clothed on the outside as well as the stem with stright erect, black, bristle-like, obscurely septate hairs 150 — 200×6 — 7 , paler above and slightly swollen at the base. Asci clavate-cylindrical, 60 — 70×7 — 8 with abundant filiform paraphyses. Sporidia biseriate, oblong-fusoid, hyaline, with the endochrome imperfectly 1—2-parted, 12 — $14 \times 2\frac{1}{2}$ — 3 , subinequilateral.

PEZIZA (MOLLISIA) PRINICOLA, E. & E.—On dead leaves of *Quercus Prinus*, Louisiana, March '88, Langlois, No. 1329. Hypophyllous, subgregarious, carnose-membranaceous brown (liver-brown), about $\frac{1}{2}$ mm. diam. of fibrous structure, attached by a central point.

Asci oblong-cylindrical, sessile about 35×6 micr., with filiform paraphyses very slightly thickened above. Sporidia biseriate, clavate-fusoid, continuous, hyaline, $8-11 \times 1\frac{1}{2}$. When dry has much the same general appearance as *P. protrusa*, *B. & C.*

PEZIZA CLAVIGERA, E. & E.—On dead leaves of *Ammophila, longifolia*. Sand Coulee, Montana, July, '88. F. W. Anderson, No. 22. Protruded when moist, contracted and hysteryform when dry, disk cinereous or livid-white, oblong, $\frac{1}{4}-\frac{1}{2}$ mm. wide, $\frac{1}{2}-1$ mm. long, margin fimbriate, of fibrous structure, the ends of the fibers roughened. Asci clavate-cylindrical, sessile, narrowed below into a stipe like base. Paraphyses clavate thickened, muricate roughened and $3\frac{1}{2}-4$ micr. thick above, attenuated and septate below, rather longer than the asci. Sporidia biseriate, oblong, hyaline, obtuse, 2—3-nucleate, $12-15 \times 4-4\frac{1}{2}$. Allied to such species as *P. protrusa*, *B. & C.* and *P. Andropogonis*, *B. & C.*

DERMATEA PURPURASCENS, E. & E.—On dead chestnut limbs, West Chester, Pa., July '88. Erumpent, sessile, substipitate, $\frac{1}{2}-\frac{3}{4}$ mm. high, scattered or two or three together, disk convex or plane, subimmarginate, $\frac{3}{4}-1$ mm. across, dirty white becoming red dish-purple, darker outside, contracted below with a short thick stipe-like base. Asci clavate-cylindrical, $115-120 \times 18-22$, with stout paraphyses slightly thickened above. Sporidia biseriate, oblong, slightly curved, $25-30 \times 8-11$, nearly hyaline, ends obtuse, with 4 large nuclei. The fruit is about the same as in *D. olivacea*, *Ell.*, and the size, shape and general habit is about the same as in that species from which in fact it differs, principally in the color of the disk, and of which it might perhaps be considered a mere variety.

DERMATEA PRUINOSA, E. & E.—On decaying bark. Colorado, Theo. D. A. Cockerell. Gregarious, sessile or nearly so, centrally attached with the thin margin free and spreading, $2-2\frac{1}{2}$ mm. across, dirty-brown and white-pruinose outside, disk livid-white, (light liver color when dry). Asci cylindrical 55×5 micr. with filiform paraphyses simple or branching. Sporidia mostly biseriate, allantoid, hyaline, $8-10 \times 2-2\frac{1}{2}$. Allied to *P. (Dermatea) fuscanguinea* *Rehm.*, but differs in color and in the size and shape of the sporidea.

HELOTIUM RHIZOGENUM, E. & E.—On exposed dead roots of *Andropogon*, Newfield, N. J., Aug. 1885. Stipitate, pale at first, becoming light yellow. Stem cylindrical, rather crooked, 2—4 mm. high, $\frac{1}{2}-1$ mm. thick, pale and granulose-pubescent, at first only slightly enlarged at the top and merely excavated or

hollowed out, soon expanding to a slightly concave disk 1—2 mm. across and of a pale yellow color with a lighter margin. Asci narrow, 65—75 x 5 with filiform paraphyses. Sporidia biseriata, clavate-fusoid, hyaline, 6—8 x $1\frac{1}{4}$ — $1\frac{1}{2}$.

STICTIS (CRYPTODSICUS) NIVEO-PURPUREUS, E. & E.—On a decaying white oak post, Newfield, N. J., Aug. 19, '88. Gregarious, $\frac{1}{2}$ —1 mm. across, disk plane or a little convex, lilac purple, margin snow-white, pruinose, of a loose friable texture, somewhat toothed, recurved when fresh, closed when dry and then scarcely discernible, Asci 75 x 12 micr. with filiform paraphyses which are crisped and bent at the tips. Sporidia biseriata ovate-oblong, hyaline, 3-septate and finally somewhat constricted at the septa, 12—16 x 5—6. The border in the fresh state resembles the peridium of an *Æcidium*. From the description of that species it might be supposed that this may be a form of *S. atrovirens*, Fr., but that has a broader disk of a dark green color and lacks the snow white margin.

PHYLLOSTICTA CARYÆ, E. & E.—On living leaves of *Caryæ*, Newfield, N. J., Aug. '88. Spots subrotund, brown, paler in the center, often acute at each end and mostly having a nerve of the leaf running through their center, ($\frac{1}{2}$ —1 cm. diam.) with a definite margin. Perithecia scattered, epiphyllous, minute, lenticular, black-brown, rather numerous. Sporules oblong, hyaline about 5—8 x $1\frac{1}{2}$ —2. The fungus is also found on old insect galls and on the brown spots caused by these galls on the same leaves. The spots first mentioned do not appear to be caused by galls.

PHYLLOSTICTA LAGERSTRÆMIÆ, E. & E.—On living leaves of *L. Indica*, Pointe a la Hache, La., Nov. '86. Langlois, No. 835. Occupying the dead tips of the leaves. Perithecia amphigenous, punctiform, black, gregarious, erumpent, 100—111 micr. diam. Sporules ovoid, granular, 6—8 x 4—5. This has the habit of *P. terminalis*, E. & M. but is distinguished by its smaller sporules.

PHOMA LAGERSTRÆMIÆ, Speg. var. foliicola, E. & E.—On leaves of *L. Indica*, Pointe a la Hache, La., Nov. '86. Langlois Nos. 833 and 834. Occupying the dead, brown tips of the leaves which are often faintly concentrically zoned. Perithecia amphigenous, sublenticular, about 150 micr. diam. erumpent. Sporules fusoid-oblong, 6—8 x 2, on slender basidia 15—20 micr. long. On account of the distinct basidia we have referred this to Spegazini's species from which it differs in its foliicolous growth. It differs from *Phyllosticta Lagerstræmiæ*, E. & E. in its sublenticular perithecia and ovate sporules.

PHOMA INFOSSA, E. & E.—On dead limbs of *Fraxinus*, Syracuse, N. Y., Mar. '87, Underwood & Cook. Perithecia scattered, buried in the inner bark, rather large, with an obtusely-conic erumpent ostiolum. Sporules, cylindrical, hyaline, slightly curved, $5-6 \times 1\frac{1}{2}$, ends obtuse. When the cuticle falls away the perithecia go with it, leaving shallow pits $\frac{3}{4}-1$ mm. across. (Early stage of Valsa)?

PHOMA URENS, E. & E.—On dead poplar branches, Middlesex Falls, Mass., April '88. Prof. L. M. Underwood, No. 612. Perithecia subglobose, densely gregarious, sometimes partially confluent, more or less erumpent, black, surrounding and entirely occupying the limbs and blackening the inner bark. Sporules oblong-elliptical, hyaline, $6-8 \times 2\frac{1}{2}-3$.

PHOMA MAMILLARIÆ, E. & E.—On spines of *Mamillaria vivipara*, Sand Coulee, Montana, July '88, F. W. Anderson No. 19. Perithecia subelongated, sporules oblong-cylindrical, 1-3 nucleate, $9-12 \times 3\frac{1}{2}-4$, ends obtuse. Can hardly be *P. torrens*, Sacc. nor *P. Cacti*, Berk.

PHOMA PARASITICA, E. & E.—Parasitic on *Taphrina cœrulescens*. On living leaves of *Quercus coccinea*. Newfield, N. J., June '88. Perithecia scattered, minute, black, sporules, oblong-elliptical and subinequilateral, 2-nucleate, hyaline $7-9 \times 3$.

MACROPHOMA XANTHOXYLI, E. & E.—On dead limbs of *Xanthoxylon*. Louisiana, March '88, Langlois No. 1249. Perithecia immersed, seriate, white inside, small, barely cracking the epidermis and scarcely visible. Sporules oblong-fusoid, $22-27 \times 6$.

AMEROSPORIUM ÆCONOMICUM, Ell. & Tracy.—On "cow pea." Starkville, Miss., Sep. '88. (Tracy No. 87.) Spots orbicular, 2-6 mm. diam., white above with a reddish border, mostly entirely red below. Perithecia epiphyllous, erumpent, conic-hemispheric, broadly perforated above, beset with straight, spreading, greyish-black, septate bristles $100-150 \times 4$. Sporules oblong-fusoid, nucleate, $18-27 \times 4$.

SEPTORIA CITRULLI E. & E.—On languishing leaves of watermelon (*Citrullus*) Vineland, N. Jersey, Aug. '88, Col A. W. Pearson. Spots small (1 mm.) round, white, scattered. Perithecia mostly solitary, one in the center of each spot, slightly prominent. Sporules cylindrical or clavate-cylindrical, nucleolate, hyaline, $10-25 \times 1\frac{1}{2}-2$ curved. Possibly a foliicolous form of *S. vestita* B. & C.

HENDERSONIA CELTIDIS, E. & E.—On dead twigs of *Celtis occidentalis*, West Chester, Pa., Dec. '87. Perithecia erumpent,

scattered, surrounded by the ruptured epidermis, mostly small, sometimes flattened above. Sporules clavate-oblong or subfusoid oblong, yellowish, 3—7-septate and sometimes constricted at the septa, 15—25 x 4—5, ends subobtuse.

STAGONOSPORA MYRICÆ, E. & E.—On fallen leaves of *Myrica cerifera*, Newfield, N. J., June '88. Perithecia hypophyllous, scattered, erumpent-superficial, depressed, black, shiny, pierced above, 70—80 micr. diam. Sporules cylindrical, hyaline, straight, ends rounded, 18—22 x 2½—3, on very short basidia. *Sphærella Myricæ* E. & E. and *Gnomonia Myricæ* C. & E. occur on the same leaves.

SEPTORIA GALLARUM E. & E.—On old *Solidago* galls, Pratt's Falls, N. Y., May '88. Underwood & Cook, No. 568. Perithecia scattered, minute, erumpent, black. Sporules linear-cylindrical, slightly curved, yellowish-hyaline, nucleate, 35—45 x 1½, abundant.

DINEMASPORIUM RADIATUM, E. & E.—On dead twigs of *Celtis occidentalis*, West Chester, Pa., Dec. 87. Perithecia erumpent, gregarious, ¼—½ mm. diam., cupuliform, the margin fringed with stiff, black, continuous hairs 50—70 x 2½—3, incurved when dry. Basidia simple, cylindrical, brownish 25—50 x 1½ each bearing at its apex an ovate-oblong, hyaline, 2—3 nucleate sporule 6—7 x 2—2½, with a single erect, straight bristle like hair rising from its apex and 4—5 horizontally spreading hairs 9—12 micr., long radiating from its base at the point of juncture with its basidium. The sporules sometimes become faintly uniseptate. The species differs from the usual type of *Dinemasporium* in its uniseptate sporules and radiating hairs which resemble the crest of a *Pestalotzia* but proceed from the base instead of the apex of the sporule.

LEPTOTHYRIUM CASTANICOLUM, E. & E.—On living leaves of *Castanea vesca*, Newfield, N. J., Oct. '88. Scattered over the upper surface of the leaf, both on the green parts and on the white spots formed by *Glæsporium epiphyllum* but its occurrence on the spots is only accidental. Perithecia scutellate, of radiate-fibrous structure, orbicular, slaty-black, 115—150 micr. diam. with the margin even or subcrenate. This must be quite different from *L. Castaneæ*, Spreng. (Sacc. Syll. III, p. 628) which has cylindrical sporules 5—6 x 0, 7.

GLÆOSPORIUM PODOPHYLLINUM, E. & E.—On living leaves of *Podophyllum peltatum*, Concordia, Mo., May '88, Rev. C. H. Demetrio, No. 157. Maculicolous. On light brown (1 cm.) spots with a darker greenish border. Acervuli amphigenous, white, erumpent. Spores variable in size and shape ovate 12—15 x 5—7

or oblong and cylindrical, straight or curved, hyaline 1—3-septate 20—35 x 4—7.

GLOEOSPORIUM PROFUSUM, E. & E.—On living leaves of *Corylus Americana*, Vicksburg, Miss., July '88. Prof. S. M. Tracy. Acervuli scattered hypophyllous large, cirrhi white profuse. Spores cylindric-oblong, granular and 3-septate, 25—30 x 6—7. The leaf is mottled with yellow specks above. *G. rostratum* E. & E. is on definite spots and has longer, narrower spores.

GLOEOSPORIUM VIOLAE, B. & BR.—On *Viola odorata*. Starkville, Miss., June '88. Prof. S. M. Tracy. Spots large (1—2 cm.) pallid and finally nearly white, border subindefinite. Spores oblong-elliptical, 8—12 x 3—5. Acervuli yellowish.

GLOEOSPORIUM NECANS, E. & E.—On fronds and stems of *Pteris aquilina*, Newfield, N. J., June '88. Amphigenous but mostly epiphyllous on dark reddish brown spots on the pinnules of the frond. Usually several adjacent or opposite pinnules are attacked while those on either side remain green. Soon the affected pinnules become brown and dead and as the fungus spreads the entire frond is killed and dries up as if scorched with fire. The fungus also appears on the stipe on light yellow brown elongated (1—1½ cm.) spots which partly surround the stipe with a broad brownish-black discoloration above and below them. Acervuli (on the stipe) erumpent, small, black, often subelongated, becoming yellow—on the pinnules less distinctly erumpent and yellowish even at first. Sporules oblong-cylindrical, hyaline, obtuse, mostly straight, with 2—3 small nuclei, finally uniseptate, 12—22 x 4—5. This is quite distinct from *G. Pteridis*, Harkn. both in its mode of growth and in its fruit. It is very destructive.

PESTALOTZIA PALLIDA, Ell & Martin—On fallen leaves of *Quercus alba*, Newfield, N. J. Sent also from Ohio by Prof. W. A. Kellerman (1883). Amphigenous. Acervuli subdiscoid 70—150 micr. diam. Spores fusoid, 3—4-septate, pale yellowish-hyaline, 12—15 x 3½—4, with a single oblique bristle 7—9 micr. long at the apex and a pedicel about 7 micr. long below. The distance between the extreme septa is 10—12 micr. and the septa themselves stand out from the body of the spore like hoops on a barrel,

PESTALOTZIA TAPHRINICOLA, E. & E.—Parasitic on *Taphrina caerulescens*, on *Quercus alba* and *Q. coccinea*, Newfield, N. J. Sent also from Louisiana by Rev. A. B. Langlois, No. 1151. Acervuli amphigenous, minute punctiform, black. Spores fusoid-oblong pale brown, 3—4-septate and mostly constricted at the septa 16—22 x 6—7 with an oblique bristle 6—7 micr. long at the tip and borne on short, slender pedicels

6—8 micr. long. Differs from the preceding species as noted in the description. Distance between the extreme septa 12—15 micr.

POLYSCYTALUM CYLINDROIDES, Sacc. & Ell.—Hyphis e basi paullo incrassata subcylindricis, brivibus, subfuligineis subsimplicibus; catenulis passim ramosis; conidiis cylindricis, utrinque obtuse-rotundatis, spurie 1-septatis, 15—20 x $2\frac{1}{2}$ —3. On fallen leaves of *Quercus virens* and *Q. aquatica*, Pointe a la Hache, La., Feb. '87. Rev. A. B. Langlois, 1073. Hyphæ short, cylindrical, thickened below, brownish 25—35 x $2\frac{1}{2}$ —3, subnodulose, subsimple. Chains of conidia occasionally branched. Conidia cylindrical, rounded at the ends, spuriously, 1-septate, 15—20 x $2\frac{1}{2}$ —3. Differs from *Cylindrium* in its brownish hyphæ—and from *Polyscytalum fecundissimum*, Riess. in its nearly simple hyphæ—from *P. sericeum* it differs in its conidia not swollen at the ends and its less effused habit, forming small subpulvinate tufts mostly less than 1 mm. diam.

VERTICILLIUM DICHOTOMUM E. & E.—On dead clover stems (*Trifolium pratense*) Newfield, N. J. Aug. '88. Snow white, fertile hyphæ erect, 70—80 x 3—4, subverticillately or oftener dichotomously branched above, the branches straight septate, pointed and about 20 x 3 micr., bearing at their tips the oblong-clavate, continuous, hyaline 6—12 x 2—3, solitary conidia. The hyphæ form minute, scattered tufts scattered evenly over the matrix and not confluent.

BOTRYTIS RHINOTRICHOIDES, Sacc. & Ell.—Parasitic on old Stemonites, on *Sphagnum*, Newfield, N. J. Hyphis subsimplicibus, eximie verticillato-spiculoso-sporigeris; candidis subglobosis, 4 x $3\frac{1}{2}$ —4. Ad genus *Rhinotrichum* valde accedit. Hyphæ subsimple bearing the subglose conidia on short spicules verticillately arranged.

BOTRYTIS TEPHROIDEA, Sacc. & Ell.—Cinerea. Hyphis parce erecto-ramosis, rarius asperulis; conidiis apiculatis, oblongo-ellipticis, 8—9 x 4—5. Ad *B. geniculatum* accedit, sed distincta. On decaying stems of *Ambrosia trifida*. Pointe a la Hache, La. Rev. A. B. Langlois, No. 1048, on rotten wood, No. 1226. Cinerous white. Hyphæ with a few erect branches, slightly roughened. Conidia oblong-elliptical, apiculate. Forms thin, continuous patches on the matrix.

BOTRYTIS FASCICULATA, E. & E.—On decaying logs in damp places. Louisiana. Rev. A. B. Langlois, 1231. Hyphæ fasciculate, di-trichotomously branched, the branches cylindrical, straight, erect, subhyaline and occasionally slightly denticulate at the tip. The lower part of the fasciculate hyphæ coalesce so as to form

distinct plume-like, pale lilac tufts about one mm, high, thickly scattered over the matrix but not effused into a continuous stratum. Conidia elliptical or ovate-elliptical, hyaline, $4-5 \times 3$.

ZYGODESMUS TRACHYCHÆTES, E. & E.—On bark of decaying pine limbs lying on the ground, Newfield, N. J. Aug, '88. Pale lilac with a tinge of yellow around the margin. Hyphæ somewhat sparingly branched, $5-6$ micr. diam. minutely muricate-roughened, their free ends divided into fascicles of basidia (also roughened) bearing on rather long sporophores the (mostly two) echinate, $6-7$ micr. conidia. This differs from *Z. sublilacinus*, Ell. & Holw. in its less branched muricate-roughened hyphæ which are of a rather lighter color and form a thinner stratum and in its more regularly shaped (globose) conidia.

CONIOSPORIUM GRAMINEUM E. & E., (*Gymnosporium gramineum* E. & E. J. M. I, 44.)—On dead culms of *Arundinaria*, Louisiana, Langlois, No. 1111 (partly). Acervuli subsuperficial, gregarious, mostly subelongated $1-2 \times \frac{1}{2}-1$ mm. but also orbicular ($\frac{1}{2}-1$ mm.), at first olive-gray (apparently from being partially covered by the thin cuticle), then sooty black. Conidia globose, dark brown $4-5$ micr. (mostly $4-4\frac{1}{2}$ micr.) diam. Differs from *C. Arundinis* (Cda.) in its smaller conidia and its more superficial mode of growth. *C. Arundinis* (sec. spec. in Kunze's F. Sel.) is covered by the epidermis which is soon longitudinally split but remains surrounding the mass of conidia like a kind of pseudo perithecium. There is nothing of this kind in the present species. The same thing has been found in Florida on *Sabal* and at Newfield, N. J. on dead culms of *Poa compressa*. In the specimens on *Sabal* the acervuli are larger ($\frac{1}{2}-1 \times \frac{1}{2}$ cm.)

STACHYBOTRYS ATROGRISEA, E. & E.—On old Tomato stems, Louisiana. Rev. A. B. Langlois 1333 (pr. p.) Sterile hyphæ creeping, branched, septate, yellowish, or smoky-hyaline, about 3 micr. diam. sending up erect subalternately branched, hyaline fertile hyphæ bearing at their tips compact heads of obovate-oblong basidia $8-10 \times 4-5$. These basidia are yellowish-hyaline below and darker (almost opaque above) and bear at their tips the oblong-elliptical 2-nucleate, smooth, dark brown $7-8 \times 3\frac{1}{2}-4\frac{1}{2}$ conidia. Dr. Zopf (in Mycotheca Marchica No. 70) considers *Stachybotrys alternans* Bon. & *S. lobulata* Berk. as only var. of *S. atra*, Cda. Admitting this, the form here described might be considered as another var. of the same, but its glaucous gray color, and smooth, subhyaline hyphæ and smooth, rather smaller conidia appear to warrant specific distinction.

STREPTOTHRIX GLAUCA, E. & E.—On decaying clover stems, Newfield, N. J.; July '88. Hyphæ forming pulvinate masses 1mm. thick continuous or interruptedly confluent for several centimeters, glaucous white then cinereous. Threads much and irregularly branched, about 6 micr. diam. their free ends closely undulate-cripsed and bearing the globose, hyaline $4\frac{1}{2}$ —5 micr. conidia.

SACCARDO'S SYLLOGE.

Vol. VII, part I of this valuable work appeared some three months ago. It includes the *Phalloideæ* by Ed. Fischer, *Nidulariaceæ*, *Lycoperdaceæ* and *Hymenogastraceæ* by Dr. J. B. De Toni; *Phycomycetæ* by Doct. A. N. Berlese and J. B. DeToni, and *Myxomycetes* by Doct. A. N. Berlese.

In the compilation of a work of this kind it would hardly be possible to adopt any arrangement of the various species that would be satisfactory to all, so whatever imperfections this volume may contain it will still be welcome, placing, as it does, within our reach so much valuable matter before inaccessible.

Since the foregoing notice was written, Vol. VI of the Sylloge has come to hand including the *Polyporeæ*, *Hydneæ*, *Thelephoreæ*, *Clavariæ* and *Tremellinæ*. There are 928 pages with descriptions of 8551 species. Pages 817—928 are occupied by an INDEX of all the species in Vols. V and VI.

Sylloge VII, part II, is expected this year and Vol. VIII (the last) in the course of 1889. In Vol. VII, part I there are 498 pages with descriptions of 1636 species followed by an INDEX of 30 pages.

The cost of the whole work so far (Vols. I—VII including the vol. of ADDITAMENTA, 484 pages), is 407 fr. about \$80, or with U. S. duty added, about \$100. Orders may be sent direct to Dr. P. A. Saccardo, Padova, Italy, who will send the vols. by mail.
J. B. E.

NOTICE.

The Herbarium of the late Dr. H. W. Ravenel, containing about 10,000 specimens of PHÆNOGAMS and CRYPTOGRAMS is now offered for sale. The collection is a very valuable one and will be a rich acquisition to the individual or Institution fortunate enough to secure it. Address, MRS. H. W. RAVENEL,
Aiken, S. Ca.